ried (77.9%), had college/graduate degrees (59.5%), and had income >$75,000 (58.7%). The mean HAQ scores was 0.48+0.55 with 79.2% (n=137) having HAQ < 1, 18.5% (n=37) between 1-2, and 2.3% (n=4) > 2. 60.3% (n=105) employed patients reported high knowledge and high motivation while only 7.5% (n=13) reported low knowledge and low motivation on MMS. Most employed respondents (90.4%, n=150) did not miss work due to RA with mean hours lost in the last seven days reported as 1.04+5.18 (0-40hrs). 54.4% (n=93) reported working more than 40 hours over the past seven days. Employed patients reported mean score of 1.8+2.2 for work impairment and 2.27+ 2.35 daily activities impairment due to their RA (measured on a scale of 0-10 where 0 was no problem and 10 was major problem). **CONCLUSIONS:** Within the employed population, RA seems to have little effect on absenteeism, work productivity and daily activities. High motivation and knowledge (adherence) and low disease severity maybe significantly and independently contributing to a favorable patient-perceived work productivity.

PMS63

RELATIONSHIP BETWEEN MEDICATION ADHERENCE, DISEASE SEVERITY AND EMPLOYMENT STATUS IN RHEUMATOID ARTHRITIS

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OBJECTIVES: To evaluate the relationship between medication adherence, disease severity and employment status in patients with rheumatoid arthritis **METHODS:** A list of 3000 patients (18-65 years) were identified from a Specialty Pharmacy database. 1,041 patients with a diagnosis of rheumatoid arthritis (RA) were identified from the list and were invited to participate in a survey. The patients were mailed a cover letter, consent letter, and a demographic questionnaire. Additionally, the Work Productivity and Activity Impairment (WPAI) questionnaire (assess productivity losses), Health Assessment Questionnaire (HAQ; disease severity), Modified Morisky Scale (MMS; medication adherence) were administered. Survey responses were linked to clinical measures obtained from the specialty pharmacy database. Descriptive and logistic regression analyses were conducted using employment status as an outcome variable and HAQ, adherence, and demographics as input variables. The statistical analyses were conducted using SPSS version 22.0. **RESULTS:** The response rate was 30.45% (n=317). Based on WPAI results, 57.4% (n=174) identified themselves as being employed. Differences in mean age and mean HAQ scores of employed (54.09 years; 0.48) and unemployed (64.13 years; 0.96) were statistically significant ($p<0.001$) while there was no difference in the disease duration ($p=0.494$). 47.3% of unemployed and 21.8% employed had HAQ scores greater than 1. There was a statistically significant difference in employed vs. unemployed ($p<0.001$) across disease severity based on HAQ. While there was no difference in the level of knowledge ($p=0.187$), there was a statistically significant difference ($p<0.001$) in the level of motivation between employed (63.5% high motivation) and unemployed (82% high motivation) respondents. **CONCLUSIONS:** Study results showed that employed patients, while having similar disease duration and level of knowledge, reported lower motivation on the MMS adherence scale. Although these patients had less severe RA compared to unemployed, this could act as a potential barrier to chronic treatment management and needs to be assessed in clinical practice.

PMS64

EVALUATION OF DISEASE ACTIVITY IN PATIENTS DIAGNOSED WITH RHEUMATOID ARTHRITIS: HOW OFTEN AND TO WHAT DETAIL ARE ASSESSMENTS DOCUMENTED?

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OBJECTIVES: The ultimate goals in managing Rheumatoid Arthritis (RA) are preventing or controlling joint damage, preventing loss of function and decreasing pain. Assessment of disease activity is critical; therefore, guidelines recommend that physicians evaluate patients' symptoms and severity. The objective of this study was to examine how often evaluation of disease activity and damage in patients with RA was documented by physicians during office visits. **METHODS:** We extracted 300 records for RA patients from a unique database of physician-patient interactions (RealHealthData). Using Atlas.ti, we analyzed these records to evaluate how often the recommended assessments of disease activity was documented by physicians during office visits. **RESULTS:** Almost all physicians (92%) document the presence of actively inflamed joints (i.e., tender and swollen joint counts) and evidence of disease progression (i.e., loss of motion, deformity). However, only 28% and 18% document duration of morning stiffness and fatigue respectively. And while limitation of function is explored, only 11% documented the degree of joint pain via a visual analog scale. Lastly, it was rare for physicians to document their own global assessment of disease activity (5%) or the patient's global assessment of disease activity (8%). **CONCLUSIONS:** The more we know about patients' reported symptoms and outcomes, the more we can actively plan and organize research, development and outreach that is patient-centric and clinically meaningful. Successful treatment includes systematic and regular evaluation of disease activity and patient assessments to help limit joint damage and functional loss. While many physicians are documenting the number of tender and swollen joints, loss of motion or deformity, a majority of physicians are not documenting patient-reported symptoms that are critical to disease monitoring such as morning stiffness, fatigue or overall degree of joint pain. Our results demonstrate there is room for improvement when it comes to documenting patient-reported outcomes in RA.

PMS65

FUNCTIONAL STATUS AMONG PATIENTS WITH RHEUMATIC DISEASES IN THE SLOVAK REPUBLIC

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OBJECTIVES: The aim of this study was to investigate the impact of chronic autoimmune diseases, mainly rheumatoid arthritis (RA), on functional status among patients in Slovakia. **METHODS:** Patients were prospectively recruited in the National Institute for Rheumatic Diseases in Slovakia during 2014 and data from patients on disease impact on their life were collected from physicians through a specifically designed questionnaire. Functional status and disability assessments were conducted among patients with RA using the Stanford Health Assessment Questionnaire (HAQ). **RESULTS:** The sample (100 respondents) was predominantly female (82%) with diagnosis of RA (86%). The average age was 51 with 14-year duration of the disease average. Thirty-eight percent of patients had osteoporosis, 21% a cardiovascular disease and 29% patients underwent surgery due to autoimmune diseases – 3 times on average. The most common symptom, occurring more than once a week, was fatigue. Patients reported also reduced physical activity, pain and specifically joint pain. Manifestations of the disease were on average at a mild intensity. Full work disability was more common (37%) than partial work disability (29%) in the sample. HAQ final score ranged from 0 (no disability) to 3 (severe disability) with average HAQ score 1.35 (SD=0.59). Majority of patients reported some or much difficulty in all HAQ domains and the highest disability was found for the domains of reach (score 1.59) and grip (1.54). HAQ score is increasing with the disease duration: average HAQ score in patients with RA lasting less than 10 years was significantly lower (1.17) than in patients with the disease duration of 20 years and more (1.61). **CONCLUSIONS:** Results indicate that chronic autoimmune diseases, mainly rheumatoid arthritis (RA), have negative impact on activities of daily living and the most commonly reported symptoms are fatigue and pain. Functional status is worsening with the duration of the disease.

PMS66

SOCIO-ECONOMIC STATUS AND WORK DISABILITY AMONG PATIENTS WITH RHEUMATIC DISEASES IN THE SLOVAK REPUBLIC

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OBJECTIVES: The aim of this study was to investigate the socio-economic impact of chronic autoimmune diseases, mainly rheumatoid arthritis (RA) and work disabilities, among patients in Slovakia. **METHODS:** Patients were prospectively recruited in the National Institute for Rheumatic Diseases in Slovakia during the year 2014 and the data from patients on disease impact on their life were collected by consulting physicians through a specifically designed questionnaire. **RESULTS:** The sample (100 respondents) was predominantly female (82%) with diagnosis of RA (86%). As many as 66% of the patients became permanently work disabled at the average age of 42 years, with full work disability being more common (37%) than partial work disability (29%). The occurrence of sick leave in the past 12 months among patients with a job was 48% with an average length of 30 days. Twenty-three percent of respondents had to change their jobs due to the disease. Average personal expenses connected with the treatment in the last 3 months were 74 €, out of that the highest were their costs of traveling. 74% of respondents stated restrictive (52%) or very restrictive (22%) impact of the disease on their functioning, mostly in strenuous activities or sport. Three most frequently reported areas negatively affected by the disease were: social activities (reported by 63% responders), professional career (49%) and quality of a relationship with their partner (28%). Areas that have improved in comparison with the period when patients started their treatment were: communication with healthcare personnel and more effective therapies available. The support from patient organizations wasn't perceived as significant. **CONCLUSIONS:** The occurrence of permanent work disability and sick leave was substantial in the sample. This study in patients with autoimmune chronic conditions - mainly RA, showed significant impact of the disease on work capabilities and socio-economic status.

PMS67

PREFERENCES FOR NEW TREATMENTS DIMINISH IN THE FACE OF AMBIGUITY

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OBJECTIVES: Using an example of a new drug for rheumatoid arthritis which offers comparable effectiveness and side-effect point estimates to older drugs, we explore preferences for treatments labelled 'new'. We then examine the persistence of preferences once ambiguity in the evidence base due to it being new is introduced. **METHODS:** A representative Canadian population sample (n=2837) was randomized to one of three discrete choice experiment (DCE) designs, seeking choices between hypothetical treatments for rheumatoid arthritis with different levels of 7 attributes: route and frequency of administration, chance of benefit, serious and minor side-effects, life expectancy, and uncertainty in benefit and side-effect estimates. DCEs differed in whether the treatment was 1) described as new (recently available) or older (5 or 10 years), 2) whether a qualitative description describing the confidence in the evidence was included instead, or 3) both the length of time available and confidence in evidence was provided. We collected self-reports of respondent innovativeness, numeracy, and risk attitude. **RESULTS:** Overall, all 6 consistent attributes influenced preferences for treatment. A preference for less ambiguity (more confidence) in benefit and side-effect estimates was observed, but no preference for a treatment labelled 'new' or 'old'. Early adopters (n=173) had a significant preference for 'newer' treatments relative to old treatments (B=0.157, p=0.045). The magnitude of preference for new treatments was comparable with preferences for reducing the risks of serious side-effects in this group. When the newness of the drug was combined with ambiguity in the evidence base, these preferences for 'new' treatments diminished. **CONCLUSIONS:** Preferences for innovation in health care exist for some groups of people, but when presented with the implications of new treatments (increased ambiguity in evidence), these preferences diminished. Physicians should either avoid describing whether treatments are 'new', or qualify the implications of a 'new' treatment in terms of ambiguity in estimates of risks and benefits.

PMS68

INFILTRATION OF LIPOSOMAL BUPIVACAINE (LB) DECREASES LENGTH OF HOSPITALIZATION FOLLOWING TOTAL KNEE ARTHROPLASTY (TKA)

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OBJECTIVES: Perioperative pain management is an important aspect of recovery from TKA, as severe pain can delay ambulation and hospital discharge. The objective of this study was to determine the impact of local infiltration analgesia using LB when compared to continuous femoral nerve catheter (FNC) following TKA. **METHODS:** This study enrolled consecutive patients who received a TKA between April 2011 and September 2014 into three study groups, excluding bilateral and revision TKA. Study Group A received adductor canal infiltration with bupivacaine and knee infiltration with LB. Study Group B received adductor canal infiltration with LB and knee infiltration with LB. The control group received a continuous FNC with an OnQ pump and ropivacaine. Numeric pain rating scores (NPRS), distance walked, and length of stay (LOS) were the primary outcomes. **RESULTS:** A total of 237 participants were enrolled in this study, including 98 in Group A, 34 in Group B, and 105 controls. On postoperative day (POD) 0, mean NPRS were similar between Group A (1.8±1.7), Group B (2.7±1.8), and the control group (2.3±2.4). Significantly ($p<0.05$) more patients in Group A (58%) and Group B (44%) walked on POD 0 than in the control group (0%); almost all patients walked on POD1. The mean distance walked was also significantly greater ($p<0.05$) on POD0 and on POD1 in Group A (33±42 feet; 193±203 feet) and Group B (42±82 feet; 211±144 feet) than in the control group (0 feet; 46.3±73 feet). LOS was significantly ($p<0.05$) shorter in Group B (2.2±1.7 days), than in the control group (3.2±0.7 days) and Group A (3.0±1.7 days). **CONCLUSIONS:** Local infiltration analgesia using LB improved ambulation and LOS following TKA when compared to continuous FNC with an OnQ pump and ropivacaine. The one-day decrease of hospitalization suggests an estimated cost savings to an Illinois hospital of $2,158 per patient.

PMS69

PATIENT-REPORTED PHYSICAL FUNCTION OUTCOME MEASURE FOR ADULTS WITH FIBRODYSPLASIA OSSIFICANS PROGRESSIVA: INTELLIGENT TEST DESIGN BASED ON PROMIS ITEM BANKS

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OBJECTIVES: Fibrodysplasia Ossificans Progressiva (FOP) is a rare and disabling genetic condition of progressive extraskeletal bone formation. Physical functioning declines as FOP progresses. The objective was to develop a measure of physical function (PF) in adults with FOP. **METHODS:** We reviewed the PROMIS PF item bank for relevant items for FOP, and 44 PF items were identified. We then conducted concept elicitation (CE) interviews in 21 patients diagnosed with FOP (with varying levels of disease severity) who attended the International FOP Association meeting. The selected PF items were administered after the CE interviews. Interview data were analyzed to identify categories of physical functioning that were impacted by FOP. Based on the CE findings and PF item data, 26 items were initially selected for the new measure. Clinical experts in FOP reviewed the proposed set of items. Five additional items were incorporated into the draft measure, and cognitive interviews (CIs) were conducted in 10 patients, and revisions were made to the final FOP-PF Questionnaire (FOP-PFQ; 28 items). **RESULTS:** For the CE interviews, mean age was 30 years (range 16–54) and 58% were female. For the CIs, mean age was 31 years (range 16–57) and 50% were female. CE interviews demonstrated substantial impacts of FOP on mobility, upper extremity function, and related activities. The CE findings, PROMIS PF item descriptive data, and discussion with clinical experts resulted in 31 relevant items which were included in the draft FOP-PFQ. Based on the CIs, the majority of patients understood the instructions, questions, and response scales; three items were deleted due to redundancy or item removal from the original PROMIS item bank. **CONCLUSIONS:** This qualitative research supports the content validity of the FOP-PFQ and illustrates the application of PROMIS item banks for efficient new instrument development in an ultra-rare and disabling genetic disease.

PMS70

RAPID ACQUISITION OF DATA ON THE PATIENT PERSPECTIVE IN RHEUMATOID ARTHRTIS THROUGH A DIGITAL PORTAL

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OBJECTIVES: Rheumatoid arthritis (RA) is an autoimmune disease characterized by significant morbidity related to systemic and joint inflammation. With the availability of more targeted therapeutic approaches and the potential of disease remission, there is increased focus on utilizing patient reported outcomes to better evaluate RA treatment impact. Collecting such data efficiently, i.e., with relatively low cost and time expenditures, can be challenging. Our objective was to implement digital direct-to-patient methodology to collect and incorporate United States (US) RA patient data into the Outcome Measures in Rheumatoid Arthritis Clinical Trials (OMERACT) project to study the patient perspective on remission. **METHODS:** Leveraging a known community (MediGuard.org) of approximately 40,000 US RA patients with pre-existing consent to contact for research purposes, patients were contacted in December 2014 to obtain 50 responses to the OMERACT survey through a direct-to-patient digital communications platform. Patients did not receive any honoraria for survey completion. **RESULTS:** The first survey was completed within seven minutes of initial digital outreach and the fiftieth within three hours. RA patients from 23 continental US states were represented. Of the 50 patients, 82% were female, mean age 54.8 years; male patients were older, mean age 61.7 years. RA diagnosis duration was 11.3 years average (range 1-40). Comorbidities including other autoimmune and musculoskeletal conditions, diabetes, cardiovascular disease, malignancies were reported by 70%; 76% reported synthetic (72%) and/or targeted (44%) disease-modifying antirheumatic drug use; 84% reported current RA disease activity. Additional usable data were obtained including those on education, employment, health insurance, income, remission state, health assessment questionnaire, and patient global for the project. **CONCLUSIONS:** This analysis documents the feasibility of gaining rapid and relevant responses from a representative community RA patient population regarding their perspective on RA remission through our digital direct to patient portal.

PMS71

CONTENT VALIDITY EVALUATION OF A NEW DIARY DEVELOPED TO EVALUATE SYMPTOMS IMPORTANT TO PATIENTS WITH MODERATE TO SEVERE RHEUMATOID ARTHRITIS

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OBJECTIVES: Patient-reported outcome instruments are used in clinical trials of rheumatoid arthritis (RA) treatments to evaluate treatment benefits. A growing body of evidence suggests that joint pain, tiredness, and morning joint stiffness are among the most important symptoms for RA patients. A 7-item electronic daily diary was developed to assess these key symptom concerns of patients with RA for use as efficacy endpoints in clinical trials. The aim of this study was to evaluate the content of the diary and to ascertain whether patients with RA found items in the diary interpretable and relevant through concept elicitation and cognitive interviews. **METHODS:** A cross-sectional qualitative interview study was conducted in adults with moderate-severe RA in the US and UK. Interviews were conducted using a standardized interview guide to elicit information about ways patients with RA experience and talk about their symptoms followed by a cognitive interview on the dairy. Data were analyzed utilizing a qualitative analysis software program, Atlas.ti. **RESULTS:** The study sample included 28 participants (US n=22, UK n=6; 29% male; mean age 58.41 years; RA mean duration 13.92 years). Total HAQ-DI mean scores were 0.84 (US) and 1.50 (UK). Morning joint stiffness (n=19), joint pain (n=28), and tiredness (n=7) were among the most commonly experienced and reported symptoms; saturation of these concepts was achieved in the second interview. These results demonstrated that the diary includes appropriate content and terminology. Cognitive interviews indicated that participants found the diary items and response options clear, easy to understand and relevant to their RA experiences. No differences in qualitative results were noted between the two country samples. **CONCLUSIONS:** Results of this qualitative study suggest that the 7-item electronic daily diary includes content relevant to patients and is suitable for assessing RA symptoms in clinical studies of patients with moderate to severe RA.

PMS72

DOES ORAL CHOLECALCIFEROL SUPPLEMENTATION IMPROVES PAIN INTENSITY AND DISABILITY IN PATIENTS WITH CHRONIC LOW BACK PAIN?

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OBJECTIVES: In the past decade many studies established relationship between vitamin D deficiency and chronic musculoskeletal pain including low back pain. Present study aimed to examine the effect of vitamin D3 supplementation in patients with chronic low back pain with low level of vitamin D. **METHODS:** This single arm, open label study was conducted in a public tertiary care teaching hospital in India after obtaining approval from the Ethics Review Board of the hospital. Adult patients of either gender, aged 18 to 65 years, with a diagnosis of CLBP and low serum 25(OH) D3 levels (<30 ng/mL) and not responding to medications and physical therapies, having a pain score of at least 50 as assessed on 0 – 100 Visual Analogue scale (VAS) at baseline were eligible for study recruitment. Cholecalciferol (active vitamin D3) in a dose of 60,000 IU/week for a period of 8 weeks was given to the enrolled subjects according to standard guidelines. Study endpoints include change in pain score and disability as measured by modified Oswestry disability questionnaire (MODQ). Patient information and outcome measures were collected at baseline, 2, 3 and 6 months. **RESULTS:** A total of 68 chronic low back patients were included in the trial. Mean baseline vitamin D level is found to be 12.80+5.73 ng/ml. After treatment it significantly ($P<0.01$) increased to 36.07+12.51. VAS (81.03+18.57) and MODQ (44.83+15.47) were high at baseline. Pain intensity has significantly reduced to 44.71+18.96 (<0.05) and 35.74+17.75 (<0.05) at 3 and 6 months respectively. Disability has significantly reduced to 30.94+12.48 (<0.05) and 26.10+10.03 (<0.05) at 3 and 6 months respectively. **CONCLUSIONS:** Present study shows that vitamin D supplementation can improve the pain and disability in patients with CLBP. Study results should be carefully interpreted as it is a single arm open label study and concomitant medication usage was not assessed.

PMS73

MINIMALLY IMPORTANT DIFFERENCES FOR PATIENT-REPORTED OUTCOMES MEASUREMENT INFORMATION SYSTEM (PROMIS) FATIGUE AND PAIN INTERFERENCE SCORES

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OBJECTIVES: Interpretation of patient-reported outcomes (PROs) requires some definition of an important or meaningful difference. This study aimed to estimate minimally important differences (MIDs) for the Patient-Reported Outcomes Measurement Information System (PROMIS®) Fatigue and Pain Interference scale scores in rheumatoid arthritis (RA). **METHODS:** The responsiveness of several PROs was assessed in an observational cohort of 521 RA patients in the Arthritis, Rheumatism and Aging Medical Information Systems (ARAMIS) cohorts. PROMIS Fatigue and Pain Interference instruments were administered at baseline, 6 months, and 12 months. Self-reported retrospective changes in fatigue and pain over the previous 6 months were obtained at